

5 (2)

## AUTHORS:

Markovskiy, L. Ya., Kaputovskaya, G. V., Sov/78-4-8-3/43  
Kondrashev, Yu. D.

## TITLE:

On the Problem of the Existence of a Magnesium Boride of the  
Composition  $Mg_3B_2$  (K voprosu o sushchestvovanii borida magniya  
sostava  $Mg_3B_2$ )

## PERIODICAL:

Zhurnal neorganicheskoy khimii, 1959, Vol 4, Nr 8,  
pp 1710 - 1714 (USSR)

## ABSTRACT:

In his classical paper on boron H. Moissan pointed to the fact  
(Ref 1) that boron forms several compounds with magnesium,  
among them one with the formula  $Mg_3B_2$ . This opinion is maintained  
also in the papers of other research workers (Refs 2-5). In  
earlier papers of the authors (Refs 6,7) simultaneously with  
American scientists (Refs 8,9), however, no such compound  
 $Mg_3B_2$  was found. Table 1 shows the new experimental results.

Figure 1 shows the formation of tetraborane in dependence on  
the composition of the sinter. The yield in tetraborane in-  
creases with the magnesium content of the sinter. By means of  
infrared spectroscopy it was found that tetraborane is formed

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On the Problem of the Existence of a Magnesium  
• Boride of the Composition  $Mg_3B_2$  SOV/78-4-8-3/43

as final product in the hydrolysis of  $MgB_2$ . Table 3 shows the  
interplanar spacings for the various compounds of magnesium  
with boron. It may be seen from it that magnesium boride with  
the formula  $Mg_3B_2$  does not exist. There are 1 figure, 3 tables,  
and 14 references, 7 of which are Soviet.

ASSOCIATION: Gosudarstvennyy institut prikladnoy khimii (State Institute of  
Applied Chemistry)

SUBMITTED: October 11, 1957

Card 2/2

MARKOVSKIY, L.Ya.; KAPUTOVSKAYA, G.V.

Chemical stability and hydrolytic decomposition of diborides of  
some transition metals in their reactions with acids. Zhur.  
prikl. khim. 33 no.3:569-577 Mr '60. (MIRA 13:6)  
(Borides)

30163  
S/080/62/035/004/002/022  
D204/D301

11.222/

AUTHORS: Markovskiy, L. Ya. and Kaputovskaya, G. V.

TITLE: Certain chemical properties of Mg borides and their role in preparing elemental B by a magnesiothermal method

PERIODICAL: Zhurnal prikladnoy khimii, v. 35, no. 4, 1962, 723-729

TEXT: The interactions of Mg borides with aerial  $O_2$ ,  $N_2$  and C were studied. Preparation and analysis of the borides and of amorphous B, which was also tested for oxidation resistance, are briefly mentioned. 1-g-samples of the powdered materials (99-100%  $\leq 10 \mu$ ) were pressed into quartz tubes open at one end (15 mm dia.) and were oxidized in a slow current of air between 400 - 600°C, for 0 - 15 hours. It was found that oxidation resistance decreased in the order  $MgB_{12} > MgB_6 > MgB_4$ , the higher borides being unaffected up to 550 - 575°C. Short-period oxidation (15 min.) at 500 - 600°C, followed by extraction with 1:1 HCl showed that Mg was attacked in

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S/080/62/035/004/002/022  
D204/D301

Certain chemical properties ...

preference to B, owing to a deficiency of surface  $B_2O_3$  which prevented the formation of a protective oxide layer. Absence of the latter tended to reduce the long term (15 hrs) stability of  $MgB_{12}$  and  $MgB_6$  towards oxidation, in comparison with  $MgB_2$  and  $Mg_2B_3$  which oxidized more rapidly at first. No Mg nitrides were formed. Resistance to O-free  $N_2$  was studied over 2 - 3 hours between 600 - 1350°C and was found to be high, especially for the higher borides. No interaction with graphite was detected up to 1800°C. A discussion is next given of the magnesiothermal production of amorphous B, showing that 'Moissan's boron' consists of  $MgB_{12}$  containing 20% of B and B suboxides, probably as a solid solution. This is followed by consideration of the role of  $MgB_{12}$  in purifying B by vacuo-thermal and selective oxidation methods. The help of Yu. D. Kondrashev with the X-ray work is acknowledged. There are 6 figures, 4 tables and 15 references: 11 Soviet-bloc and 4 non-Soviet-bloc. The references to the English-language publications read as follows: M. Jones,

Card 2/3

PAVLYUCHENKO, M.M.; KAPUTSKIY, F.N.

Kinetics of formation of cadmium ammonium iodide. Uch.zap. BGU  
(MIRA 11:11)  
no.29:87-94 '56.  
(Cadmium ammonium iodides) (Chemical reaction, Rate of)

YERMOLENKO, I.N.; PAVLYUCHENKO, M.M.; KAPUTSKIY, P.M.

Diagram of the oxidation of cellulose by nitrogen oxides.  
Dokl. AN BSSR 2 no.11:461-464 D '58. (MIRA 12:8)

1. Predstavлено академиком AN BSSR N.F. Yermolenko.  
(CELLULOSE) (NITROGEN OXIDE) (OXIDATION)

KAPUTSKIY, F. N.

307/4984

## PHASE I BOOK EXPLOITATION

International symposium on macromolecular chemistry. Moscow, 1960.

Moskva, 14-18 Iyunya 1960 g.; doklad, 1 avtoreferat. Sotsiya III. (International Symposium on Macromolecular Chemistry) Held in Moscow, June 14-18, 1960; Papers and Summaries) Section III. [Moscow, Izd-vo AN SSSR, 1960] 469 p. 55,000 copies printed.

Tech. Ed.: P. S. Kashina.

Sponsoring Agency: The International Union of Pure and Applied Chemistry. Commission on Macromolecular Chemistry.

PURPOSE: This book is intended for chemists interested in polymerization reactions and the synthesis of high molecular compounds.

COVERAGE: This is Section III of a multi-volume work containing papers on macromolecular chemistry. The article in general deal with the kinetics of polymerization reactions, the synthesis of special-purpose polymers, e.g., ion exchange resins, semiconductor materials, etc., methods of catalyzing polymerization reactions, properties and chemical interactions of high molecular materials, and the effects of various factors on polymerization and the degradation of high molecular compounds. No personalities are mentioned. References given follow the articles.

Ulanov, N. U., U. N. Musatov, and R. S. Tikhonov (USSR). The Radiation Method of Copolymerizing Acrylonitrile With Polystyrene and Phenylacrylina. 170

Rezhkov, S. R., G. N. Chelnokova, I. V. Zhdanov, and P. N. Tikhonov (USSR). Quaternization of Carbocyclic and Heterocyclic Polymers. 184

Santos, J., and K. Gal (Hungary). Grafting Methyl Methacrylate onto Polystyrene Alcohol Under the Action of X-Rays. 207

Lazar, M., R. Radlo, and M. Pavlikus (Czechoslovakia). Grafting Methyl Methacrylate onto Polypropylene and Polyethylene. 214

Horvath, J. A., Z. I. Smalley, and V. M. Suttor (USSR). The Interaction of Carbonyl-Containing Butadiene-Styrene Rubbers With Polyamides and E-Caprolactam. 224

Kolehmainen, U. S., and Te'eng Han-ting (USSR). Synthesis of the Controlled Synthesis of  $\alpha$ -Methyl Cellulose With Oxides of Nitrogen. 293

Ivanov, V. I., N. Ya. Leshina, V. S. Ivanova (USSR). Oxidative Transformations in Chains of Cellulose Molecules. 310

Berlin, A. A., Ye. A. Penskaya, and G. I. Volkova (USSR). Mechanicochemical Transformations and Block Copolymerization During the Freezing of Starch Solutions. 302

Umanov, E. N., B. I. Arkhodzhev, and U. Arishev (USSR). Modification of the Properties of Cellulose by Grafting. 334

344 7273

YERMOLENKO, I.N.; KAPUTSKIY, F.N.

Use of nitrogen oxides in the synthesis of modified cellulose.  
Vysokom. soed. 2 no.4:626 Ap '60. (MIRA 13:11)  
(Cellulose) (Nitrogen oxide)

YERMOLENKO, I.N.; KAPUTSKIY, F.N.; PAVLYUCHENKO, M.M.

Effect of the moisture content and the composition of the oxidant on  
the oxidation of cellulose by nitrogen oxides. Dokl.AN BSSR 4 no.10:  
417-420 '60. (MIRA 13:9)

1. Institut obshchey i neorganicheskoy khimii AN BSSR.  
(Nitrogen oxides) (Oxidation)

PAVLYUCHENKO, M.M.; YERMOLENKO, I.N.; KAFUTSKIY, F.N.

Mechanism of the oxidation of cellulose by nitrogen dioxide. Zhur.  
prikl. khim. 33 no.6:1385-1391 Je '60. (MIRA 13:8)  
(Nitrogen oxide) (Cellulose)  
(Oxidation)

KAPUTSKIY, F.N.; PAVLYUCHENKO, M.M.; YERMOLENKO, I.N.

Effect of nitrogen trioxide, moisture, and phosphoric acid  
on the reaction of cellulose with nitrogen peroxide. Vysokom.  
soed. 4 no.4:503-509 Ap '62. (MIRA 15:5)

1. Institut obshchey i neorganicheskoy khimii AN BSSR.  
(Cellulose) (Nitrogen oxides) (Phosphoric acid)

KAPUTSKIY, F.N.; PAVLYUCHENKO, M.M.; YERMOLENKO, I.N.

Effect of the nature of solvent on the reaction of cellulose  
with nitrogen dioxide. Vysokom. soed. 5 no.1:75-78 Ja '63.  
(MIRA 16:1)

1. Belorusskiy gosudarstvennyy universitet im. V.I.Lenina i  
Institut obshchey i neorganicheskoy khimii AN Belorusskoy SSR.  
(Cellulose) (Nitrogen oxide) (Solvents)

KLYAVZUNIK, I.Z.; PRISTUPA, Ch.V.; KAPUTSKIJ, F.N.; YERMOLENKO, I.N.  
(Ermolenko, I.N.)

Experimental study of carboxymethylcellulose. Vestsi AN  
BSSR. Ser. bial. nav. no.1:133-134 '64. (MIR 17:6)

REZNIKOV, M.Ya. [Reznikau, M.IA.]; KAPUTSKIY, F.N. [Kaputski, F.M.];  
YERMOLENKO, I.N. [IArmolenka, I.M.]

Electric conductivity and the degree of swelling of oxidized  
cellulose salts. Vestsi AN BSSR. Ser. fiz.-tekhn. nav.  
no.3:39-45 '62. (MIRA 18:3)

L 40086-66 EWP(j)/EWT(m)/T RM/WW/JWD

ACC NR: AP6008277

SOURCE CODE: UR/0080/66/039/002/0458/0460

AUTHOR: Yermolenko, I. N.; Gusev, S. S.; Kaputskiy, F. N.; Vasilenko, Z. I.

53  
51  
B

ORG: none

TITLE: Infrared spectra of partially substituted nitroesters of polyanhydrouanic acid

SOURCE: Zhurnal prikladnoy khimii, v. 39, no. 2, 1966, 458-460

TOPIC TAGS: IR spectroscopy, cellulose, esterification, absorption spectrum

ABSTRACT: The use of spectral methods to determine the position of substitutes in cellulose derivatives was studied. For the experiments, purified cotton cellulose and monocarboxyl cellulose containing 4.7 and 7% COOH groups were used. The nitro groups were introduced at 20° with concentrated  $H_2SO_4$  and  $HNO_3$  in the ratio 3:1, and with  $H_2SO_4+HNO_3$  diluted with  $H_2O$  in the ratio 38:32:30. Spectra were taken in the 400-3600  $cm^{-1}$  region. Infrared spectra of cellulose after esterification with diluted nitration mixture have weak bands at 900, 1630 ( $NO_2$ ) and 1725 ( $CO$ )  $cm^{-1}$ ; this indicates slight accumulation of nitro groups in cellulose. Accumulation of  $NO_2$  groups in monocarboxylic cellulose containing 4.7 and 7% COOH groups is less than in nitrated cellulose, which indicates that in the reaction with  $HNO_3$ , cellulose is more active than monocarboxylic cellulose. Esterification of cellulose with concentrated nitration

UDC: 543.422+661.728

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ACC NR: AP6008277

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mixture changes the character of the absorption spectrum: characteristic bands for the high substituted esters of cellulose appear in the 685, 782, 860  $\text{cm}^{-1}$  regions. This change signals the transformation of cellulose into nitrocellulose.<sup>1</sup> Orig. art. has: 2 figures.

SUB CODE: 07/ SUBM DATE: 22Apr64/ ORIG REF: 007

*ns*  
Card 2/2

MAGNITSKIY, Konstantin Pavlovich. Prinimali uchastiye: GOSUDAREVA, A.G.; PANITKIN, V.A.; BEILYAKOVA, N.G.; KAPUSTYANSKIY, A.N.; ZHUKOV, S.N.; NIKULINA, F.F.; BALABANOV, B.G.; VISHNYAKOVA, Ye., red.; KUZNETSOVA, A., tekhn. red.

[Control of the nutrition of field and vegetable crops] Kontrol' pitaniiia polevykh i ovoshchmykh kul'tur. Moskva, Mosk. rabochii, 1964. 302 p. (MIRA 17:2)

1. Nauchnyye sotrudniki laboratorii kaliya Nauchnogo instituta po udobreniyam i insektofungitsidam (for Gosudareva, Panitkin, Belyakova, Kapustyanskiy, Zhukov, Nikulina, Balabanov).

KAPUVARI, A.

The five-row grape cultivator is well-proven. p. 14.  
UJITOK LAPJA, Budapest, Vol. 7, no. 15, Aug. 1955.

SO: Monthly List of East European Accessions, (EEAL), LC, Vol. 4, no. 10, Oct. 1955,  
Uncl.

KAPUVARI, Jeno

Use of plastics in the construction industry. Epites szemle  
6 no.6:189-192 '62.

1. Epitesgazdasagi es Szervezesi Intezet tudomanyos munkatarsa.

KAPUY, E.; CSAVISZKY, P.

B. Kockel's Representation Theory Treatment of Simple Mechanical Wave Problems; a book review. In German. p. 347. Vol. 6, No. 2 1956. ACTA PHYSICA. Budapest Hungary.

SOURCE: East European List, (EEAL) Library of Congress Vol. 6, No. 1  
January, 1956

HUNGARY/Atomic and Molecular Physics - Physics of the Molecule. D

Abs Jour : Ref Zhur Fizika, No 4, 1960, 8276

Author : Kapuy, E.

Inst : Hungarian Academy of Sciences, Budapest, Hungary

Title : Application of One-Center Wave Functions to Tetrahedral Symmetric Hydrid Molecules. II. Numerical Computations for Methane

Orig Pub : Acta phys. Acad. scient. hung., 1959, 9, No 4, 445-459

Abstract : To calculate certain physical constants of the molecule  $\text{CH}_4$ , a one-center function of two types is used. By the one-center method of molecular orbits, the wave function was constructed for the ground state of  $\text{CH}_4$  from Slater 1s-, 2s-, and 2p-functions with varied parameters. Satisfactory results were obtained for the energy, coupling length, and frequency of completely symmetrical

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HUNGARY/Atomic and Molecular Physics - Physics of the Molecule. D  
APPROVED FOR RELEASE: 06/13/2000 CIA-RDP86-00513R000720520009-6"

Abs Jour : Ref Zhur Fizika, No 4, 1960, 8276

oscillation and ionization potential. The method does not give a correct value of the binding energy. The one-center method of valence structure in the method of spherically-symmetrical density, gave results similar to the one-center molecular orbit method. -- Ye.A. Pshenichnov

Card 2/2

KAPUY, E.

"Application of one-center wave functions to tetrahedral symmetric hydride molecules. I. Theoretical basis of the method." In English. p. 317.

ACTA PHYSICA. (Magyar Tudomanyos Akademia). Budapest, Hungary, Vol. 9, No. 3, 1959.

Monthly list of East European Accessions (EEAI), LC, Vol. 8, No. 8,  
August 1959.  
Uncla.

✓ Diamagnetic susceptibility of perturbed systems. B.  
Kapry (Hung. Acad. Sci., Budapest). *Acta Phys. Acad.  
Sci. Hung.*, 9, 475-7 (1959) (in English).—The  $1s$  state of  
 $\text{HeH}^{++}$  may be considered as the simplest model of a per-  
turbed system. The diamagnetic susceptibility can be  
calcd. by a variational method by using the exact eigenfunc-  
tions of Bates and Carlson (C.A. 50, 12830c). The results  
are tabulated as a function of internuclear distance as a  
sum of a Langevin term and a high-frequency term. For  
zero distance, the value agrees with that for  $\text{Li}^{++}$ .  
Paul Becker

2  
AE24

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Density matrixes for wave functions built up of two-electron orbitals. J. E. Karmy (Hung. Acad. Sci., Budapest). *Acta Phys. Acad. Sci. Hung.*, 11, 97-101 (1960) (in English); cf. CA 54, 10494c. — For wave function built up of antisymmetrical nonorthogonal 2-electron orbitals, the 2nd-order nonorthogonality is taken into account in the calcn. of the 1st- and 2nd-order d. matrixes. As an example, the energy expression for CH<sub>4</sub> is calcd. C. Olivier-Rutgers

Research Group for Theoretical Physics of the Hungarian AS  
Budapest

✓ Derivation of approximate two-electron orbitals. E.  
Kapuy (Hung. Acad. Sci., Budapest). *Acta Phys. Acad.  
Sci. Hung.* 11, 409-15 (1960) (in English); c. CA 54,  
19146i.—A method of obtaining  $N$  2-electron orbitals in a  
mol. with  $N$  bonds from the  $2N$  1-electron orbitals is de-  
scribed, and energy calcs are outlined. H H [signature]

Research Group for Theoretical Physics  
of the Hungarian Acad. Sci. Budapest

S/058/62/000/011/015/061  
A062/A101

AUTHOR: Kapuy, E.

TITLE: Derivation of "almost" orthogonal two-electron orbitals

PERIODICAL: Referativnyy zhurnal, Fizika, no. 11, 1962, 8, abstract 11V52  
("Acta phys. Acad. scient. hung.", 1961, v. 13, no. 4, 461 - 468,  
English)

TEXT: The previously investigated systems of related integro-differential equations that determine the best two-electron wave functions of a multi-electron problem (RZhFiz, 1962, 1V52), are somewhat modified so that the antisymmetric orthogonal two-electron orbits  $\psi_I$  (1, 2), determined by these equations, may be decomposed in a full system of one-electron spin-orbitals  $v_{II}$  (1). There are found equations which determine the best two-electron functions  $\psi_I$  (1, 2) corresponding to a limited (non full) system of one-electron orbits, and equations which determine the best functions  $v_{II}$  (1) at a given limited number of basic one-electron functions. It has been assumed further that, even without broadening the given basis of one-electron functions, it is possible somewhat to improve

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Derivation of "almost" orthogonal...

S/058/62/000/011/015/061  
A062/A101

the expression of the full wave function by two-electron functions, if partially abandoning the conditions of their orthogonality  $\int \varphi_I^*(1,2)\varphi_J(1,3)d\tau_1 = 0 (I \neq J)$ . Integro-differential equations are obtained which determine the indicated "almost orthogonal" functions  $\varphi_I(1, 2)$ . With an accuracy to the first order on the non-orthogonality, an expression is found for the full energy of the system.

S. Vetchinkin

[Abstracter's note: Complete translation]

Card 2/2

KAPUY, E.

Configuration interaction for wave functions constructed from orthogonal many-electron group orbitals. Acta phys Hung 13 no.3:345-352 '61.

1. Research Group for Theoretical Physics, Hungarian Academy of Sciences, Budapest.

KAPUY, E.

Derivation of "almost" orthogonal two-electron orbitals.  
Acta phys Hung 13 no.4:461-468 '61.

1. Research Group for Theoretical Physics, Hungarian Academy  
of Sciences, Budapest.

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S/081/62/148/024/002/073  
B108/B186

AUTHOR: Kapuy, E.

TITLE: Configuration interaction for wave functions constructed from orthogonal many-electron group orbitals

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 24, 1962, 12, abstract 24B48 (Acta phys. Acad. scient. hung., v. 13, no. 3, 1961, 345 - 352 [Ger.])

TEXT: Previously obtained results concerning the construction of orthogonal two-electron orbitals are extended to wave functions resulting from the displacement of the one-, two-, three-, and many-electron orbitals (group orbitals). The concept of "excited states of electron groups" is defined. A theorem is given which in a more general form was demonstrated by Levdin (RZhKhim, 1962, 6B19). This theorem permits the author to formulate the fundamental principles for constructing approximate group orbitals, taking configuration interaction into consideration. Non-vanishing matrix elements of the atomic Hamiltonian are demonstrated. [Abstracter's note: Complete translation.]

Card 1/1

KAPUY, E.

"Group theory in quantum mechanics" by V. Heine. Reviewed by E. Kapuy.  
Acta phys Hung 15 no.3:285-286 '63.

KAPUY, E.

On the correlation problem in the theory of atoms and molecules.  
Acta phys. Hung 15 no.4:341-350 '63.

1. Research Group for Theoretical Physics of the Hungarian Academy  
of Sciences, Budapest. - Presented by Albert Konya.

JAVOR, Tibor; NAGY, Gyorgy; KAPUSZ, Nandor

Surgical procedure for the preparation in dogs, of an internal pancreatic fistula which can be cannulated. Kiserl. orvostud. 14 no.4:337-339 S '62.

1. Debreceni Orvostudomanyi Egyetem II. Belgyogyaszati Klinikaja es Igazsagugyi Orvostani Intezete.  
(PANCREATIC FISTULA)

MANVELYAN, M.G.; SAYADYAN, A.G.; ABRAMYAN, A.A.; MIKAYELYAN, Dzh.A.;  
KAPYANTSYAN, E.Ye.

Decomposition of alkali-calcium precipitates obtained in the  
process of treating nephelite rocks by hydrochemical methods.  
TSvet. met. 34 no.2:56-60 F '61. (MIRA 14:6)  
(Hydrometallurgy) (Nephelite)

KAPYRIN, G. I.

"A Study on Re-Distribution of Elements in Metal Alloys and Weld Joints by Radiography and Radiometry", by B. Y. Bruk, A. S. Zavyalov, G. I. Kapyrin.

Report presented at 2nd UN Atoms-for-Peace Conference, Geneva, 9-13 Sept 1958

KAPRIN G. I.

## FILE 1 BOOK INFORMATION 807/372

Bialystok'skii obshchii stat'ii, No. 3 (Poroshkovyj kollektiv of Article), No. 3), Leningrad, Sverogiz, 1959. 350 p. 3,200 copies printed.

Ed: O. I. Kaprin, Candidate of Technical Sciences; Literatury and Tech. Ed: N. I. Dovzhenko.

PURPOSE: This collection of articles is intended for scientific personnel at research and educational institutions and industrial plants and also for advanced students.

CONTENTS: The articles report the results of investigations of 1) the effect of various factors on the susceptibility of constructional and heat-resistant steels and titanium alloys to brittle failure at various temperatures under various conditions of loading (long-time, short-time, cyclic); mechanical properties, structure, and condition of alloys as related to their mechanical properties; and 2) corrosion resistance and evaluation of stability and heat-resistant steels. The articles are accompanied by numerous figures and non-Soviet references. No warranties are mentioned.

Authors: P. O. and V. A. Brestchikov. Mechanical Strength - of POC.

Balandin, Yu. P., Candidate of Technical Sciences. Thermal Fatigue of Metals 290

Chechulin, B. B.; V. I. Brestchikov, Engineers and Yu. S. Pernber, Candidate of Technical Sciences. Investigation of the Strength of Titanium 263

Brestchikov, A. I., Candidate of Technical Sciences. Effect of Vanadium, Molybdenum, and Niobium on the Properties of Alpha Alloys of Niobium 279

Korin, Yu. D. Heat Treatment of Two-Phase Alloys of Titanium 298

Novik, L. S., and Gerasim, Yu. N. Anomalous Growth of Metals in Vacuum 312

Pruk, L. I., Candidate of Technical Sciences; A. S. Karyagin; and G. I. Teplo, Candidate of Technical Sciences. Investigations of the Isotropy of Elements in Metallic Alloys and the Isotropy of Carboc in Alpha-Iron. 326

Pruk, B. I. Reliability of Carboc in Alpha-Iron. 345

Gal'perin, L. S. Candidate of Technical Sciences; and E. L. Kalyuzhne, Candidate. Structure and Properties of Forgings as Influenced by Forging Conditions 349

Bulatkin, B. M., Candidate of Technical Sciences; A. I. Tashchikova. Properties of Single-Phase Heatable Titanium Alloys 358

Strelkov, B. V. Candidate of Technical Sciences. Modeling in Corrosive Salt Water in Marine and Sea Water 367

Brestchikov, S. Ye., Brestchikov, Engineers. Use of the Electron Microscope in Investigating the Structure of Type-4346 Autoclave Steel at Various Degrees of Susceptibility to Intergranular Corrosion 381

AVAILABILITY: Library of Congress

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VR/BS/AM

7-20-50

KAPYRIN A. I. et al. tekhn.nauk, otv.red.; POPOV, A.V., red.; KOTLYAKOVA,  
O.I., tekhn.red.

[Metallurgy; collection of articles] Metallurgiia; sbornik  
statei. Leningrad, Gos.soiuznoe izd-vo sudostroit.promyshl.  
Vol.1. 1958. 177 p. (MIRA 12:9)  
(Steel) (Titanium)

KAPYRIN, G.I., kand.tekhn.nauk, otv.red.; KRUGOVA, Ye.A., red.; VOLCHOV,  
E.M., tekhn.red.

[Metallurgy; a collection of articles] Metallovedenie;  
sbornik statei. Gos.sciusnoe izd-vo sudostroit.promyshl.  
Vol.2. 1958. 265 p. (MIRA 12:5)  
(Metallurgy)

BRUK, B.I., kand.tehn.nauk; ZAV'YALOV, A.S., doktor tehn.nauk, prof.;  
KAPYRIN, G.I., kand.tehn.nauk

Studying the redistribution of elements in metal alloys and welded  
joints by the method of autoradiography and radiometry. Metal-  
lovedenie 3:314-325 '59. (MIRA 14:3)

(Metallurgy) (Autoradiography)  
(Radioisotopes—Industrial application)

KRASIL'SHCHIKOV, Zal'man Naftal'yevich; SHMIDT, Nikolay Vladimirovich;  
SHVACH, Yevgeniy Nikolayevich; PAVLENKO, Nikolay Timofeyevich;  
NECHMPURENKO, Stepan Yefimovich; KAPRIN, G.I., nauchnyy red.;  
NIKITINA, R.D., red.; KRASTOVA, N.V., tekhn.red.

[Thermal strengthening of nonhardensble carbon steel] Termicheskoe  
uprochnenie nezakalivaiushchaisia uglerodistoi stali. Leningrad,  
Gos.soiuznoe izd-vo sudostroit.promyshl., 1960. 146 p.

(MIRA 13:10)

(Steel--Heat treatment)

MATVEYEV, A.I. (Lyubertsy); KAPYRIN, O.D. (Lyubertsy)

Construction of precast reinforced concrete tanks with a capacity of 30 000 m<sup>3</sup>. Stroi. truboprov. 10 no.2:22-26 F '65. (MIRA 18:5)

21(4)

PHASE I BOOK EXPLOITATION

SOV/2534

Kapyrin, Pafnutiy Ivanovich, and Oleg Sergeyevich SergeyevV Dubne pod Moskvoi (At Dubna near Moscow) [Moscow] Moskovskiy rabochiy,  
1958. 97 p. 25,000 copies printed.

Ed. S. Gurov; Tech. Ed.: I. Yegorova.

PURPOSE: This booklet is intended for the general reader

COVERAGE: This is a simplified booklet on nuclear and high-energy physics, the technology of acceleration, and the peaceful uses of atomic energy. It describes the research of scientists from twelve Socialist countries carried on at the Ob"yedinennyi institut yadernykh issledovaniy (United Institute of Nuclear Physics Research) in Dubna, as well as the Soviet proton-synchrocyclotron.

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KAPYRIN, S.F., inzh.

Geodetic operations in constructing hydroelectric power stations.  
Gidr. stroi. 30 no.10:48-50 0 '60. (MIRA 13:10)  
(Geodesy) (Hydroelectric power stations)

1. KAPYRIN, V. N.
2. USSR (600)
4. Electric T<sub>ransformers</sub>
7. Changing transformers over to different voltage. Rab. energ., 2, no. 12, 1952.
  
9. Monthly List of Russian Accessions, Library of Congress, April 1953, Uncl.

1. KAPYRIN, V.N.
2. USSR (600)
4. Electric Transformers
7. Calculating three-phase transformers of a capacity up to 100 kva, 6 kv. Eng. Rab. energ. 3 no. 4, 1953.
  
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KEDROV, Bonifatiy Mikhaylovich; KAPYRIN, V.S., red.; NAUMOV, L.M.,  
tekhn.red.

[Classification of sciences] Klassifikatsiya nauk. Moskva,  
Izd-vo VPSh i AON pri TsK KPSS. Vol.1. [Engels and his  
predecessors] Engel's i ego predstavenniki. 1961. 471 p.  
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(Classification of sciences)

FOKEYEV, V.M.; KAPYRIN, Yu.V.

Determining heat losses in a well shaft and the effect of  
injecting large quantities of water on the temperature conditions  
of the Romashkino field. Neft. khoz. 39 no.12:33-38 D '61.

(MIRA 14:12)

(Romashkino region—Oil fields—Production methods)

TESLYUK, Ye.V.; KAPRIN, Yu.V.; FOKEYEV, V.M.

Design formulas for estimating the thermal effect on well  
bottoms. Nauch.-tekhn. sbor. po dob. nefti no.16:93-101 '62.  
(MIRA 15:9)  
(Oil fields—Production methods)

TESLYUK, Ye.V.; KAPYRIN, Yu.V.; TREBIN, G.F.

Solving certain problems of heat conductivity and flow occurring  
in petroleum production involving the use of thermal drive. Trudy  
VNII no.37:271-289 '62. (MIRA 16:6)  
(Petroleum production, Thermal)

TESLYUK, Ye.V.; KAPYRIN, Yu.V.; TREBIN, G.F.

Estimating the efficiency of thermal drive. Neft. khoz. 40 no.8:  
42-49 Ag '62. (MIRA 17:2)

KAPYRIN, Yu.V.; TREBIN, G.F.

Estimating errors in the investigation of deep-well oil  
samples. Nauch.-tekhn. sbor. po dob. nefti no.21:62-67 '63.  
(MIRA 17:5)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy  
institut.

VOLODIN, V.A.; KAPYRIN, Yu.V.; TESLYUK, Ye.V.

Studying the vertical profile of the output and flow rates of fluids  
in producing and injection wells. Nauch.-tekhn. sbor. po dob. nefti  
no.20:66-71 '63. (MIRA 17:6)

KAPYRIN, Yu.V.; TREBIN, G.F.; POZIN, L.Z.

Using temperature effects in investigating the wells of the  
Romashkino field. Neft. khoz. 42 no. 3:26-32 Mr '64.  
(MIRA 17:7)

TREBIN, G.F.; KAPYRIN, Yu.V.; VASIL'YEV, V.N.

Thermograph with contact temperature-sensitive element for  
investigating wells. Nefteprom. delo no. 7:33-36 '64.  
(MIRA 17:8)

1. Vsesoyuznyy naftegazovyy nauchno-issledovatel'skiy institut.

TREBIN, G.F.; KAPYRIN, Yu.V.

Crystallization of paraffin in the bottom zone of oil wells.  
(MIRA 17:9)  
Neft. khoz. 42 no.8:39-45 Ag '64.

TREBIN, G.F.; SAVINIKHINA, A.V.; KAPYRIN, Yu.V.; GROMOVA, A.A.

Certain results of the study of the crystallization of paraffin  
from the reservoir oil of the Bitkov oil field. Nauch.-tekhn. sbor.  
po dob. nefti no.24:43-47 '64. (MIRA 17:10)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

VASIL'YEV, V.N.; GROMOVA, A.A.; KAPYRIN, Yu.V.; TREBIN, G.F.

Studying viscosity at increased temperatures. Nauch.-tekhn. sbor.  
po dob. nefti no.22:55-57 '64. (MIRA 17:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

KAPYRIN, Yu.V.; TREBIN, G.F.

Concerning the temperature conditions of oil wells. Nauch.-tekhn.  
sbor. po dob. nefti no.25:104-109 '64. (MIRA 17:12)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

BABANIN, V.N.; BAIKOV, V.N.; GREBIN, G.P.; KAPYRIN, Yu.V.

Automatic control of pressure maintenance in the transfer of  
subsurface samples. Nauch.-tekhn. sbor. po nefti no.4;  
112-113 '64. (MIA 17.12)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

KAPYRIN, Yu.V.; MIKITKO, I.T.

Determining the intervals of the inflow of petroleum to a well  
by the method of differential thermometry. Trudy VNII no.42:  
235-243 '65. (MIRA 18:5)

"APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000720520009-6

TESLYUK, Ye.V.; ROZENBERG, M.D.; KAPYRIN, Yu.V.; TREBIN, G.F.

Nonisothermal multiphase flow and the calculation of thermodynamic  
effects in the development of oil fields. Trudy VNII no.42:281-293  
'65. (MIRA 18:5)

APPROVED FOR RELEASE: 06/13/2000

CIA-RDP86-00513R000720520009-6"

KARYGIN, Yu.V.; TRERIN, G.F.

Crystallization of paraffins from formation petroleums. Nauch. tekhn. sbor. po dob. nafti no.27:79-6. '65. (MIRA 18:9)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

ABEZGAUZ, I.M.; KAPYRIN, Yu.V.; TREBIN, G.F.

New method for determining the optical density of petroleum.

Nefteprom.delo no.10:13-14 '65.

(MIRA 19:1)

1. Vsesoyuznyy neftegazovyy nauchno-issledovatel'skiy institut.

KAPYSH, Ye.M.

System for opening carbide barrels. Elek. i tepl. tiaga 7  
no. 4:22-23 Ap '63. (MIRA 16:5)

1. Nachal'nik tekhnicheskogo otdela depo Ussuriysk.  
(Carbides)

KAPYSHEV, A.G.; VENEVTSOV, Yu.N.; SOLOV'YEV, S.P.; GORBUNOV, L.A.;  
ZHDANOV, G.S.

X-ray chambers for high-temperature studies. Zav. lab. 30 no.10:  
1274-1276 '64. (MIRA 18\*4)

1. Nauchno-issledovatel'skiy fiziko-khimicheskiy institut imeni  
Karpova.

KAPYSHEV, A. G.

70-2-5/24

AUTHOR:

Venevtsev, Yu.N., Kapyshev, A.G. and Shumov, Yu.V.

TITLE:

An X-ray structural investigation of the system  
 $PbTiO_3 - BaSnO_3$ . (Rentgenograficheskoye issledovaniye systemy  
 $PbTiO_3 - BaSnO_3$ .)PERIODICAL: "Kristallografiya" (Crystallography), 1957, Vol.2,  
No.2, pp.235-238 (U.S.S.R.)ABSTRACT: X-ray powder photographs of the system  $PbTiO_3 - BaSnO_3$  at  
various temperatures showed a continuous range of solid solu-  
tions. The phase diagram of  $(pb, Ba)(Ti, Sn)O_3$  was constructed  
showing only two phases, one cubic (paraelectric), the other  
tetragonal (ferro-electric). The diagram agrees with that  
traced from di-electric measurements by I.E. Myl'nikova. The  
Curie temperature in this system falls more sharply with  
increasing Sn concentration than in the  $Pb(Ti, Sn)O_3$  system.Card  
1/3Both  $SnTiO_3$  and  $BaSnO_3$  have the perovskite structure but  
the former compound is ferro-electric. Examination of their  
solid solutions was expected to elucidate some of the factors  
leading to ferro-electricity in the perovskite structures.  
Specimens were prepared in the Institute for Silicate Chemistry  
(IKhS AN SSSR) from  $BaCO_3$ ,  $TiO_2$ ,  $SnO_2$  and  $PbO$  by heating at

70-2-5/24  
An X-ray structural investigation of the system  $\text{PbTiO}_3 - \text{BaSnO}_3$ . (Cont.)

At 250°C for one hour. X-ray powder photographs were taken with Cu or Cr radiation measuring particularly the high angle lines. The accuracy in the cell sides was about  $\pm 0.003 \text{ \AA}$ .

A change from the tetragonal form ( $\text{PbTiO}_3$ ) to the cubic ( $\text{BaSnO}_3$ ) took place at 43 mol % of the latter with no discontinuity in the cell volume. The ratio  $c/a$  does not decrease continuously to 1 but drops sharply from 1.003. High temperature photographs from 30 mol %  $\text{BaSnO}_3$  showed a Curie temperature of  $190 \pm 10 \text{ }^\circ\text{C}$  compared with  $490 \text{ }^\circ\text{C}$  for pure  $\text{PbTiO}_3$ . Specimens with 43 mol %  $\text{BaSnO}_3$  have a Curie temperature about 15  $^\circ\text{C}$ . A specimen with a Curie temperature of  $-183 \text{ }^\circ\text{C}$  will have a composition of between 40 and 60%  $\text{BaSnO}_3$ . A rhombohedral phase of  $\text{Pb}(\text{Ti},\text{Sn})\text{O}_3$  is found. The correctness of the factors proposed earlier by Venevtsev (Dissertation, MIFI, Moscow, 1955, and Izv. Ak. Nauk, Ser Fiz., 21, 2, 1957) as influencing the Curie temperatures of compounds with  $t$  less than 1 is confirmed.

Discussions with Prof. G.S. Zhdanov and the assistance of Dr. G.A. Smolenskiy and Cand. I.E. Myl'nikova are acknowledged. There are 4 figures and 19 references, 9 of which are Slavic.

70-2-5724  
● An X-ray structural investigation of the system  $PbTiO_3$  -  
 $BaSnO_3$ . (Cont.)

ASSOCIATION: Physico-Chemical Institute im. L.Ya. Karpova. (Fiziko-  
Card 3/3 Khimicheskiy Institut i. L.Ta. Karpova)

SUBMITTED: November 16, 1956.

AVAILABLE: Library of Congress

KAPIYSHEV, A.G.

5.46661A  
24.7800  
AUTHORS: V.S.

1070/60/0

24.7900 VENKOV, Yu.N. *Избранные сочинения*. Vol. 1. Solov'yev, S.P. and others. Yaroslavl, 1950. 2 vols. 8°.

Crystal Chemical Investigations of Substances with  
Special Reference to Structure, Which has Special

the Perovskite Type of  
Dielectric Properties?]  
Vol. 1, No. 4.

PERIODICAL: *Kristallografiya*, 1960, vol. 3, no. 4, pp. 620-626.

TEXT: In BaTiO<sub>3</sub> the dielectrically-active ion is the Ti<sup>4+</sup>. In PbTiO<sub>3</sub> it is the Pb<sup>2+</sup> ion. The (Pb,Ba)TiO<sub>3</sub> system may, therefore, be expected to show peculiarities where these two effects interact. The variation in structure, dielectric and piezoelectric properties is not continuous from one end-member to the other. Experimentally, solid solutions with 7, 9, 11, 14 and 24 wt. % PbTiO<sub>3</sub> exhibited anomalies not applicable to loss of PbO. *Naso*<sup>3</sup> describes several phase transitions in a short temperature interval. Dielectric and optical observations give transitions at 360, 470, 530 and 640°C. X-ray data contradict all the first of these. Polycrystalline material was

studied by X-ray diffraction were found. Below 300° C.  $\beta$  is 90° C. (true symmetry monoclinic with  $a \neq c \neq b$  and  $b \neq 90^\circ$  C. (true symmetry monoclinic with  $a \neq c \neq b$  and  $b \neq 90^\circ$  C. (true symmetry orthorhombic). The transition from orthorhombic to tetragonal is not at 350° but at 470° C. The X-ray method is no less sensitive than the optical and dielectric methods. Ba<sub>1-x</sub>-(Co<sub>3</sub>Si<sub>2</sub>)<sub>2</sub>Zr<sub>2</sub>Sn<sub>10</sub>3 from an examination of solid solutions. Ba<sub>1-x</sub>-(Co<sub>3</sub>Si<sub>2</sub>)<sub>2</sub>Zr<sub>2</sub>Sn<sub>10</sub>3 is concluded that, other things being equal, the Curie temperature of perovskite-type ferrites is higher, the smaller is the period of the lattice and the higher is the polarisability of the active cation. Ba<sub>1-x</sub>Al<sub>2</sub>O<sub>3</sub> has been Ba<sub>1-x</sub> with added Ba<sub>2-x</sub>Cr<sub>2</sub>O<sub>3</sub> and Ba<sub>2-x</sub>Al<sub>2</sub>O<sub>3</sub> with Ba<sub>1-x</sub> containing Ba<sub>4</sub>Ti<sub>3</sub>O<sub>12</sub>. BaTi<sub>3</sub> containing Ba<sub>4</sub>Ti<sub>3</sub>O<sub>12</sub>.

Bi<sub>2</sub>O<sub>3</sub> and specimens in the system PbO-Ti<sub>2</sub>O<sub>3</sub>-Bi<sub>2</sub>O<sub>3</sub> have been synthesized. The former has a rhombohedral distortion 80°. In (a = 3.057 Å,  $\alpha$  = 89.34°) and a susceptibility about 1100. In 200°C the susceptibility has a maximum of about 1100. In the solid solution up to 70% by wt. of Bi<sub>2</sub>O<sub>3</sub> there is also a tetragonal modification. The Curie point of Bi<sub>2</sub>O<sub>3</sub> appears to be higher than that of PbO.<sup>3</sup>

General methods for calculating the internal fields have been developed for structures of any dipole configurations of CaTiO<sub>3</sub>.<sup>4</sup> They have been applied to the orthorhombic structure of Bi<sub>2</sub>O<sub>3</sub>.<sup>5</sup>

Here, the internal electric field is zero at the Ti sites.

There are 29 references: 3 Japanese, 8 English, 2 International, 1 Swiss, 1 German and 15 Soviet.

ASSOCIATION: Fiziko-khimicheskiy institut  
im. I. Ya. Karpova

L.Ya. Karpov  
SUBMITTED: February 23, 1964

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35597  
S/048/62/026/003/006/015  
B107/B102

24.7100 (1153,1160)

AUTHORS: Ivanova, V. V., Kapyshev, A. G., Venevtsev, Yu. N., and Zhdanov, G. S.

TITLE: X-ray determination of symmetry of the elementary cells of the ferroelectrics  $(K_{0.5}Bi_{0.5})TiO_3$  and  $(Na_{0.5}Bi_{0.5})TiO_3$  and of the high-temperature phase transitions in  $(K_{0.5}Bi_{0.5})TiO_3$

PERIODICAL: Akademiya nauk SSSR. Izvestiya. Seriya fizicheskaya, v. 26, no. 3, 1962, 354-356

TEXT: The ferroelectrics with perovskite structure,  $(K_{0.5}Bi_{0.5})TiO_3$  and  $(Na_{0.5}Bi_{0.5})TiO_3$  with the Curie point at 380 and 320°C, respectively, had been described in earlier papers (Ref. 1: G. A. Smolenskiy, A. I. Agranovskaya, Fiz. tverdogo tela, 1, no. 10, 1562 (1959); Ref. 2: G. A. Smolenskiy, V. A. Isupov, A. I. Agranovskaya, N. N. Kraynik, Fiz. tverdogo tela, 2, no. 11, 2982 (1960)). The radiographic examination with an PKY-114 (RKU-114) camera shows that the samples are single-phased at room

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S/048/62/026/003/006/015  
B107/B102

X-ray determination of symmetry ...

temperature, and that K and Bi, and/or Na and Bi are statistically distributed in the sites of the elementary cell with the coordination number 12. Splitting of some lines was observed, but could not be measured accurately. CrK radiation and an PKA-143 (RKD-143) camera (produced at the FKhI imeni L. Ya. Karpov) were therefore used. The following lattice constants were determined from the splitting of the line with

$\sum h_i^2 = 8$  :  $(K_{0.5}Bi_{0.5})TiO_3$  is tetragonal with  $a = 3.913 \pm 0.003 \text{ \AA}$ ,  $c = 3.993 \pm 0.003 \text{ \AA}$ ,  $V = 61.1 \pm 0.15 \text{ \AA}^3$ ;  $(Na_{0.5}Bi_{0.5})TiO_3$  is rhombohedral with  $a = 3.891 \pm 0.002 \text{ \AA}$ ,  $\alpha = 89^\circ 36' \pm 3'$ ,  $V = 58.7 \pm 0.1 \text{ \AA}^3$ . Furthermore, the change in the lattice constants with temperature up to  $500^\circ\text{C}$  was determined for  $(K_{0.5}Bi_{0.5})TiO_3$ . At  $270^\circ\text{C}$  the tetragonal passes over into a pseudocubic phase. The slightly diffuse lines make more accurate determination impossible. On the basis of previous conclusions (Ref. 4: Yu. N. Venevtsev, G. S. Zhdanov, Izv. AN SSSR. Ser. fiz., 21, 2275 (1957)) the distortion can be assumed to be tetragonal. The cubic phase occurring from  $410^\circ\text{C}$  onward makes the radiographs clearer. The authors thank V. A. Isupov who supplied the samples. There is 1 figure.

Card 2/3

S/048/62/026/003/006/015  
B107/B102

X-ray determination of symmetry ...

ASSOCIATION: Fiziko-khimicheskiy institut im. L. Ya. Karpova  
(Physicochemical Institute imeni L. Ya. Karpov)

✓

Card 3/3

KAPYSHEV, A.G.; VENEVITSEV, Yu.N.

X-ray diffraction study of variations in the period of elementary cells of  $(Ba, Pb)TiO_3$  solid solutions in the paraelectric region as dependent on the composition. *Kristallografiia* 8 no.2:269-270 (MIRA 17:8) Mr-Ap '63.

1. Fiziko-khimicheskiy institut imeni Karpova.

VENEVTSEV, Yu. N.; ZHDANOV, G. S.; ROGINSKAYA, Yu. Ye.; FEDULOV, S. A.;  
IVANOVA, V. V.; CHKALOVA, V. V.; VISKOV, A. S.; KAPYSHEV, A. G.;  
BONDARENKO, V. S.; LADYZHINSKIY, P. B.

Some solid solutions on the basis of the ferroelectric-  
antiferromagnetic  $\text{BiFeO}_3$ . Izv. AN SSSR. Ser. fiz. 28 no. 4:  
683-690 Ap '64. (MIRA 17:5)

VENEVTSYEV, Yu.N.; ROGINSKAYA, Yu.Ye.; VISKOV, A.S.; IVANOVA, V.V.;  
TOMASHPOL'SKIY, Yu.Ya.; SHVORNEVA, L.I.; KAPYSHEV, A.G.; TEVEROVSKIY, A. Yu.; ZHDANOV, G.S.

New lead-containing porovskite compounds of complex composition. Dokl. AN SSSR 158 no.1:86-88 S-0 '64 (MIRA 17:8)

1. Fiziko-khimicheskiy institut imeni L. Ya. Karpova. Predstavлено академиком N.V. Belovym.

TULUPOV, V.A.; KIVILIS, D.A.; KAPYSHEV, A.G.

Physicochemical study of homogeneous hydrogenation catalysts.

Part 2. Zhur. fiz. khim. 38 no.10:2415-2419 O '64.

(MIRA 18:2)

1. Vsesoyuznyy zaochnyy mashinostroitel'nyy institut.

TULUPOV, V.A.; KAPYSHEV, A.G.; TULUPOVA, A.I.

Physicochemical studies of catalysts for homogeneous catalytic  
hydrogenation. Part 3. Zhur.fiz.khim. 38 no.11:2737-2739 N '64.  
(MIRA 18:2)  
1. Vsesoyuznyy zaochnyy mashinostroitel'nyy institut.

KAPYSHEV, K.

Where are hidden potentialities? Grazhd. av. 17 no. 11:17  
N '60. (MIRA 13:12)  
(Airplanes--Maintenance and repair)

174

KAPYSHEV, K.

Shift maintenance of special-purpose airplanes. Grazhd.av.  
12 no.2:27 F '55. (MIRA 16:1)  
(Airplanes--Maintenance and repair)

VOZBUTSKAYA, Amaliya Yefremovna; ANTIPOV-KARATAYEV, I.N., akad., prof.,  
red.; ASKINAZI, D.L., prof., red.; TADZHIKSKAYA, A.N.,  
akad., red.; KAPYSHEVA, N.L., red.

[Soil chemistry] Khimiia pochvy. Izd.2., perer. i dop.  
Moskva, Vysshiaia shkola, 1964. 397 p. (MIRA 17:11)

VARUNTSYAN, I.S., akademik, red.; KAPYSHEVA, V.S., red.; PEVZNER, V.I.,  
tekhn.red.

[New preparations for cotton plant defoliation before harvesting]  
Novye preparaty dlia preduborochnogo obezlistvleniya khlopchatnika.  
Pod red. I.S.Varuntsiana. Moskva, Gos. izd-vo sel'khoz. lit-ry,  
1957. 94 p. (MIRA 11:5)

1. Vsesoyuznaya Akademiya sel'skokhozyaystvennykh nauk imeni V.I.  
Lenina. Sektsiya tekhnicheskikh kul'tur. 2. Deystvitel'nyy  
chlen Vsesoyuznoy Akademii sel'skokhozyaystvennykh nauk imeni  
V.I.Lenina (for Varuntsyan)  
(Cotton growing) (Defoliation)

KOSMACHEVSKIY, Andrey Semenovich, prof.; TSVETKOVA, V.A., red.; KAPYSHEVA,  
V.S.; DEYEVA, V.M., tekhn.red.

[Injurious soil insects and measures for their control] Vrednye  
pochvennye nasekomye i mery bor'by s nimi. Moskva, Gos.izd-vo  
sel'khoz.lit-ry, 1959. 82 p. (MIRA 13:1)  
(Insects, Injurious and beneficial)

GERASIMOVA, Aleksandra Ivanovna, kand.sel'skokhoz.nauk; MINYAYEVA, Ol'ga  
Mikhaylovna, kand.biolog.nauk; KAPYSHEVA, V.S., red.; BALLOD, A.I.,  
tekhn.red.

[Diseases and pests of forage grasses] Vrediteli i bolezni kormovykh  
trav. Moskva, Gos.izd-vo sel'khoz.lit-ry, 1960. 359 p.

(MIRA 14:6)

(Forage plants—Diseases and pests)

VORONTSOV, A.I.; KAPYSHEVA, V.S., red.; MURASHOVA, V.A., tekhn. red.

[Hidden enemies of our house; insects that destroy wood] Skrytye vragi nashego doma; nasekomye razrushiteli drevesiny. Moskva, Gos.izd-vo "Vyschaia shkola," 1961. 93 p. (MIRA 15:1)  
(Trees--Diseases and pests) (Wood)

DOBROVOL'SKIY, Boris Vladimirovich; KAPYSHEVA, V.S., red.; YEZHOOVA, L.L.,  
tekhn. red.

[Phenology of the insect pests of agriculture] Fenologija naseko-  
mykh vreditelei sel'skogo khoziaistva. Izd.2. Moskva, Gos. izd-vo  
"Vysshiaia shkola," 1961. 123 p. (MIRA 14:7)  
(Agricultural pests)

DOBROVOL'SKIY, Boris Vladimirovich; KAPYSHEVA, V.S., red.;  
YEZHOOVA, L.L., tekhn. red.

[Phenology of insect pests in agriculture] Fenologija nase-  
komykh vreditelei sel'skogo khoziaistva. 2. izd. Moskva,  
Vysshiaia shkola, 1961. 123 p. (MIRA 15:7)  
(Insects, Injurious and beneficial) (Phenology)

MARDASHEV, Sergey Rufovich; POKROVSKIY, Aleksey Alekseyevich; PAVLOVA, Nina Aleksandrovna; KAPYSHEVA, V.S., red.; YEZHOOVA, L.L., tekhn. red.

[Laboratory demonstrations for lectures on biological chemistry; manual for teachers] Demonstratsii k lektsiiam po biologicheskoi khimii; posobie dlja prepodavatelei. Moskva, Gos.izd-vo "Vysshajaia shkola," 1961. 142 p. (MIRA 14:12)  
(Biochemistry--Study and teaching)

PEREL'MAN, Aleksandr Il'ich; KAPYSHEVA, V.S., red.; GOROKHOVA, S.S.,  
tekhn. red.

[Geochemistry of epigenetic processes; zone of supergene  
processes] Geokhimiia epigeneticheskikh protsessov; zona  
gipergeneza. Moskva, Gos. izd-vo "Vysshiaia shkola," 1961.  
149 p.

(MIRA 15:3)

(Geochemistry)

LEMAN, Vladimir Mikhaylovich. Prinimal uchastiye FANTALOV, O.S., inzh.;  
KAPYSHEVA, V.S., red.; GOROKHOVA, S.S., tekhn. red.

[Course in the photoculture of plants] Kurs svetokul'tury  
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3873. Development [in Hungary] of prefabricated medium-voltage metal-clad (sheet-steel-enclosed) switchgear. F. RONKAY, A. KARA AND I. HUJLA. *Elektrotehnika*, 47, 98-113 (April 1954) *In Hungarian*.

The history of metal-clad switchgear is reviewed and present-day designs are described. A standard scheme has been worked out with 7 basic cell units. These units permit the construction of single-busbar switchgear to cover all practical requirements. Designs are given incorporating bulk oil, small oil volume and expansion (water) circuit breakers. It is concluded that with the possible exception of large stations, metal-clad gear can be used to advantage. In the case of power stations, transformer stations connected to the national network or large industrial installations, the superiority of metal-clad gear over open-cell construction might, however, be open to argument. Problems of manufacture are discussed in detail.

I. CSURUS

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BX  
MT

KARA, Antal, okl.villamosmernok

Indoor switchgear system which can be completely prefabricated.  
Villamossag 9 no.8:230-235 Ag '61.

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